

DDJC Lends a Hand in the R&D of Radio Frequency Technology

Global Asset Visibility is taking a giant step forward and Defense Distribution Depot San Joaquin, CA (DDJC) is lending a hand. DDJC is participating in the research and development of the next generation of automatic identification technology, which will provide automated, real time logistics and inventory management of Class 1 (food) items and other assets.

The new Radio Frequency Identification (RFID) technology will revolutionize the global supply chain and the ability to track every item anywhere in the supply chain in real time. DDJC is providing warehouse space, and personnel to break down and move pallets of Unitized Group Rations (UGR), Meals-Ready-to-Eat (MRE), and large cafeteria sized canned food products using various types of material handling equipment

The Defense Distribution Center (DDC) and DDJC have used RF tags for years. But until now, RF tags have been tracking 20' and 40' containers. The new RF tags being tested at DDJC, are paper thin and attach to individual cases of MREs and UGRs.

The Combat Feeding Directorate for the U.S. Army's Natick Soldier Center in Natick, MA, is designing, building, and testing a global infrastructure that will make it possible for computers to identify and track any object anywhere in the world instantly.

Also, by attaching a sensor to each package, temperature fluctuations, rough handling and, at some point, chemical or biological contamination can be detected.



Forklift operator Ron Todd takes a pallet load of MREs past sensors that read Radio Frequency Identification tags.

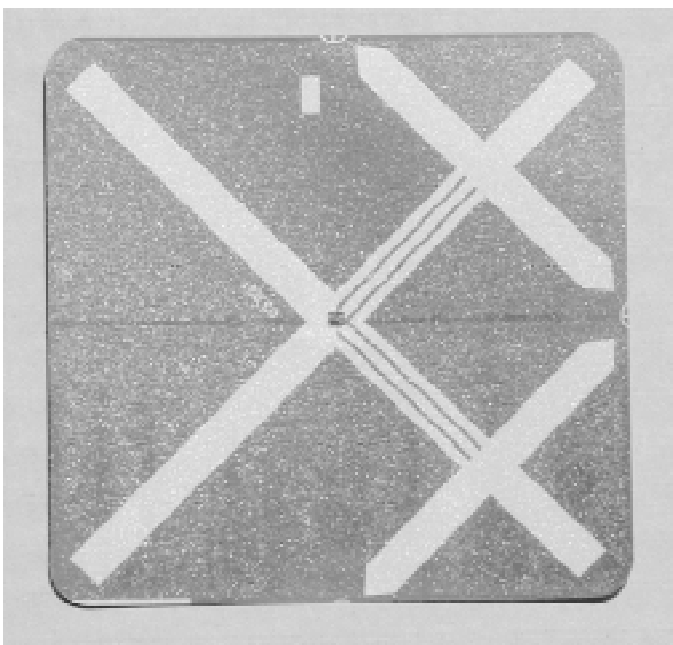
Take for instance a case of MREs with the RFID tag. Not only can it be tracked from start to finish in the logistics pipeline, but after delivery to a customer in the field, a hand held computer will be able to tell which items can be issued, which need inspection or which require disposal based on improper handling or excessive temperatures.

Three commercial vendors participated in the March DDJC test. During this time the contractors demonstrated their tags and readers. RFID tags were attached to cases of the MREs, pallets and flat bed trailers, which passed by sensors and tracked as they traveled around DDJC.

The objective was to assess the initial integration of the software and hardware in a military environment in preparation for the actual demonstration, which is scheduled to take place at DDJC in September or October.

The technology is based on RFID that employs wireless, microchips that communicate via tags and readers to uniquely identify every object in the supply chain from the point of manufacturing to disposal.

RFID employs the electronic Product Code, a 96-bit code capable of identifying over 80 thousand trillion, trillion unique items. RFID will provide real-time visibility, automated and accurate inventories without the need for manual hand counts, and ultimately reduce supply chain footprint and cost. Among the corporate sponsors are Proctor & Gamble, Wal-Mart, Pepsi and over 80 other commercial enterprises.



This is the tiny microchip that is attached to the back of this electronic product code. The microchip, about the size of a pinhead, is located in the center of the 'X', attached to antenna, which is read by sensors.